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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,805	11/12/2003	Paul L. Feintuch	02708.0147.NPUS00	7846

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EXAMINER

LOBO, IAN J

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 02/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/712,805

Applicant(s)

FEINTUCH ET AL.

Examiner

Ian J. Lobo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/8/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13, 16 and 24-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 13 and 16, there is no antecedent for the "interpretation logic". It appears that the phrase should be "identification logic".

Claims 24-26 are indefinite since they are method claims that depend upon a system (claim 21) and do not further limit the system.

Claim Objections

3. Claims 18-20 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter **of a previous claim**. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Specification

4. The disclosure is objected to because of the following informalities:

On page 22, line 19, "Figure 4A" is referenced. However, the instant file does not include a Figure 4A.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 3, 7, 9, 10, 11, 12, 17, 18, 19, 20, 22 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Farrah ('116).

Farrah discloses an object detection system (Fig. 1) for detecting and identifying targets that includes a first module (10) having a plurality of acoustic transmitters (12) configured to generate ultrasonic waves in air in a predetermined direction, a second module (16) having at least one acoustic receiver (18) configured to receive reflected ultrasonic waves originating from the first module after reflection from a target (14) and target identification logic (24) coupled to the second module and configured to generate an output representative of the target. Independent claims 1 and 17 are so anticipated.

It is further pointed out that Farrah inherently provides for the method of claim 22.

Dependent claims 2, 3, 7, 9, 10, 11, 12, 18, 19, 20 and 27 are further anticipated by the Farrah patent.

7. Claims 1-4, 7, 9, 10, 11, 17, 22 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Tournois ('982).

Tournois discloses an object detection system (Fig. 1) for detecting and identifying targets that includes a first module (E) having a plurality of acoustic transmitters configured to generate ultrasonic waves in air in a predetermined direction, a second module (H) having at least one acoustic receiver configured to receive reflected ultrasonic waves originating from the first module after reflection from a target and target identification logic (61-72) coupled to the second module and configured to generate an output representative of the target. Independent claims 1 and 17 are so anticipated.

It is further pointed out that Tournois inherently provides for the method of claim 22.

Dependent claims 2-4, 7, 9, 10, 11 and 27 are further anticipated by Tournois.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Tournois ('982) or Farrah ('116) when taken in view of Costas ('594).

Claims 5-7 differ over the Farrah and Tournois systems by claiming reduction of background noise and reverberations in the generated output.

Costas discloses a sonar object detector wherein the undesirable noises such as reverberations and background noises are accounted for and reduced. It would be obvious to one of ordinary skill in the art to modify either Tournois or Farrah to include such noise reduction in the processing system so as to optimize system performance.

10. Claims 12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tournois or Farrah when taken in view of Jordan et al ('669).

Claims 12 and 21 differ over Farrah and Tournois by claiming transmission of ultrasonic concatenated waves.

Jordan et al teaches the advantages of using concatenated acoustic waves in object detection systems. It would have been obvious to one of ordinary skill in this art to modify either Farrah or Tournois to include the transmission of concatenated acoustic waves so as to improve data detection.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian J. Lobo whose telephone number is (703) 306-4161. The examiner can normally be reached on Monday - Friday, 6:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on (703) 306-4171. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ian J. Lobo
Primary Examiner
Art Unit 3662

ijl